

Sanitary Congress, they sent half a dozen to hear what is said. I remember when the Sanitary Congress visited Kirkcaldy it did more for the education of the general public in matters affecting the health of the people than anything that had happened for many years. I think it is reasonable to expect that towns of a similar size to Kirkcaldy should make an effort to erect a sanatorium, when it is evident that a suitable building can be erected at a very small cost.

*Mr. Baile Bennett (Greenock)*.—Mr. President, ladies and gentlemen, I had no intention of speaking this morning when I came here, but I just rise to say that I am somewhat disappointed at the direction the discussion has taken. In the first place, I would like to say—and I feel sure I speak for all municipal representatives present—that as such we have all an earnest desire to do what is our duty to those who are suffering from this deadly disease. At the present time all municipal authorities throughout the country have under consideration circulars from the Local Government Board. We have a great reverence for that Board, and we try to carry out their wishes to the best of our ability. We sometimes have an idea that, as expressed in their circulars, they are somewhat oppressive and somewhat expensive. I was expecting to-day to hear the various speakers directing their attention more particularly to these various circulars that are here stated to be the outline of the paper to-day, namely, the circulars issued on 10th March and 13th July. I do not know whether it is my dulness or not, but I think the speakers have not directed their attention particularly to these various subjects. I know that remarks have been made in the direction of personal treatment of cases by education in their own homes and by visits from qualified officials, and I appreciate very much the remarks of our respected President with regard to what has been done in Dundee. As a representative of the people, I would like to see our officials agreed upon a particular course of action in advising us as to the method we should adopt. That, I think, would answer the question put by Dr. Robertson, what are the local authorities prepared to do in the matter? I think if they would, first of all, clearly state in a united way what they would advise us to do in the matter, then the local authorities, I think, would have some clear notion as to their financial responsibilities, and give them a very quick answer. (Applause.)

## THE MILK SUPPLY OF THE COUNTRY, WITH SPECIAL REFERENCE TO PROSPECTIVE LEGISLATION.

(a) FROM THE POINT OF VIEW OF THE LOCAL AUTHORITY IN A BURGH.

By G. MATHESON CULLEN, M.D., B.Sc., Convener of the Public Health Committee, Edinburgh.

The PRESIDENT—The procedure in this discussion will be that the papers will be first submitted by the three gentlemen who have undertaken to open the discussion. Then the discussion will proceed on the usual lines, and at the close the resolutions which have been submitted by Dr. Campbell Munro will be taken up.

THE vital importance of our milk supply does not require any elaborate argument, especially at such a Congress as this. Milk is a perfect and complete food, and enters largely into the dietary of all. In young children and in many diseases among adults it is the only, or, at all events, the principal, article of food. The amount consumed is therefore enormous. Some 150,000 gallons are daily brought into London alone, and this is equivalent to between 50,000,000 and 60,000,000 gallons per annum. From abroad we get an amount of condensed milk every year, which is said to be equal to 250,000,000 gallons, and, in addition, we import an increasing quantity of fresh milk. Of this latter commodity the amount brought to our shores for the nine weeks ending with the 1st of February, 1907, was 94 cwts., while at the same period in 1908 it had risen to 499 cwts.

The nature of the lacteal secretion is such that,

though it is normally discharged from the cow's udder in a sterile condition, it very soon is teeming with organisms. Moreover, as it affords a very suitable soil for the growth of pathogenic bacteria, we can easily understand how it has lent itself to the spread of infectious diseases. We now know by sad experience that it is very frequently the medium whereby scarlet fever, diphtheria, enteric fever, and tuberculosis are propagated. Indeed, there is no article of food which can compare with milk in this fell power. I believe that it is not necessary for me here to further emphasise this point, for it is now universally acknowledged, and it is the very mainspring of our desire to attain to a pure milk supply. Nor do I think it needful to combat those reactionaries who declare that our forefathers drank milk without any precautions, and were nevertheless a healthy race, and that in any case pasteurisation or sterilisation are adequate remedies. These processes, indeed, lessen, and perhaps may abolish, risk of infection, but they bring dangers of their own with them—dangers which have, unfortunately, been only too clearly demonstrated by the experience of the past few years. Milk is a vital fluid, and must be more or less injured by any manipulation, so that the general sense of the community has become expressed in the ever louder and more widespread cry for clean milk from healthy cows—in other words, pure milk.

Farming cannot be considered a clean occupation, and the dairy farmers as a class have not shown any great desire to be cleaner than their fellows. As far back as 1866, therefore, it was found necessary for legislation to interfere in the form of the Cattle-sheds in Burghs (Scotland) Act. A further advance was made by the Contagious Diseases (Animals) Act, 1878, and by the extension of this Act in 1886. This law invested the Privy Council, and later on the Local

Government Board, with authority to make orders in regard to dairy and cowsheds. It was under these powers that the Dairies, Cowsheds, and Milkshops Order of 1885 was promulgated. This Order was amended in 1886 and 1899, and it is in virtue of it and of a few sections of the Public Health Act, 1897, and of the Burgh Police (Scotland) Act, 1903, that the local authorities are enabled to deal with the milk supply.

There are two grave defects in regard to the present law. The first is that it is not uniformly administered, and the second is that it is not far-reaching enough. I admit that the first defect seems rather an argument against granting further powers, for, if some local authorities are so inactive or so prejudiced as not to administer the present law, then it may appear likely that they would not enforce a more stringent one. Still, I hold that this should not be allowed to stand in the way of the more advanced communities pressing forward beyond the limit now imposed. No law can be enforced against public opinion. That all must admit. But experience has shown that the carrying out of an experiment by an enlightened municipality has done more to remove prejudice and ripen public opinion than years spent in the bandying of mere arguments. Many here will remember the outcry raised when the compulsory notification of infectious diseases was first mooted in the late seventies. But when Edinburgh showed how futile these fears had been, how smoothly the system worked, and how slight the hardships involved, other local authorities came quickly into line. So rapidly did opinion change that by 1889 the Act was made permissive for the whole country, and in 1897 it became, without opposition, a general statute. In legislation, as in Nature, advance is never uniform along the whole line of front, and there would never be any progress at all if we had to wait

till all were equally ready for a forward movement. Moreover, it is because of imperfections in the present law that some authorities are lagging behind, and if these were remedied it is very probable that these authorities would be more enthusiastic in the administration of what may seem to be a more stringent statute.

His Majesty's Government, at all events, has accepted the view that further legislation is required, and has practically committed itself to action in the matter. Unfortunately, no bill has as yet been brought forward, and we have no means of knowing what lines it would follow. Mr. Gulland's pure milk bill did much in the way of focussing public opinion, but it was never properly discussed in the House, and it was strangled in its birth. In the absence of any legislative measure, we are left to consider the whole question, and for this purpose it will be most conveniently dealt with under four heads—The Byre, Transit, the Milk Shop, and Adulteration.

Under the first heading comes the question of the cow. Now, I think there will be no difference of opinion that every milch cow in the country should be under regular and frequent examination by veterinary surgeons appointed for that purpose and debarred from private practice. It has been suggested that these officials should be placed under the Board of Agriculture, but I believe that this arrangement would tend to complicate matters, and in any case it is not desirable to separate this work from the general public health administration, of which it would naturally form an important part. But the examination of the animals, to be of any use, must be associated with the power to segregate animals the milk of which is likely to be unwholesome. In regard to a cow suffering from tubercle, there must be the power of seizure

and immediate slaughter. It is, indeed, a strange anomaly that such great care should be taken with regard to tuberculous meat and so little with regard to the very much greater danger—the living tubercular milch cow. We can, indeed, have it removed from the byre, but it may be simply transferred to the country or to an adjacent burgh where the inspection is not so thorough, and where it may still be milked until it is again detected or till it runs dry. Thus, in spite of our vigilance, this dangerous milk may be still supplied to the people whom we hoped to protect. Besides, the removal of the affected animal from byre to byre in this fashion means the infection of these byres and the possibility of the disease being given to the healthy cows in them. Tuberculosis in cattle should be made a notifiable disease and treated as such. Thus, after the slaughter of the animal, the rest of the cows should be turned out of the byre, and the whole building thoroughly hosed and carefully disinfected, and the manure and bedding burnt. But, of course, the slaughter of the cow involves the thorny question of compensation. Personally, I am convinced that in a case of such tremendous importance as this, economy should not be too much emphasised. I would have a time limit of, say, five years, after which all diseased animals would be simply confiscated. In the interval compensation would be paid up to a maximum of one-half the market value, the exact amount to be dependent on the condition of the carcass. Where the animal killed is found free from tubercle, of course, the full market price would be given. In all cases the cowkeeper would be allowed to have a representative at the *post-mortem*.

Powers also are wanted so as to enforce the regular-grooming of cows. Very often the flanks and hind-quarters are caked with manure. This dries, and is very apt to fall into the milk pail. As a considerable

part of the dung is soluble, only a small portion is kept back by filtration. The almost universal presence of the bacillus coli communis in milk samples and the great frequency of the bacillus enteridis sporogenes show conclusively that manure is the most common contamination of milk. But, apart from the danger of swallowing such intestinal organisms, there is also a great risk of the tubercle bacillus being present, for it is well known that cow dung is the medium *par excellence* whereby these bacilli pass out of an infected animal.

In urban areas, and particularly in the central crowded districts, byres should be discouraged. For them a larger floor and cubic space should be demanded, and more ample provision for ventilation. In all such byres a separate milking house should be made obligatory—a room with smooth walls and floor, which could be thoroughly washed out between each milking period. No new byres should be permitted in burghs except at the outskirts, and a high standard of cubic space, &c., should be made imperative, as well as smooth floors and walls.

In the country byres what is wanted most at this moment is systematic inspection. In this way only can a proper water supply, adequate cleansing, &c., be enforced.

All byres must be registered by the local authority. This is a necessary corollary upon the universal examination of the cows. This registration should be annual, and any byre may be refused registration or renewal of such if its situation, construction, or condition is unsatisfactory. A penalty also should follow the sale of milk from an unregistered byre.

The regulations needed for milkers are mainly in the direction of cleanliness. They should wear clean overalls, and wash their hands and the cow's udders at each milking.

With regard to the transit of milk by rail, the companies ought to be compelled to provide special wagons, or at least special compartments well ventilated, and in summer cooled. The cans should be sealed and provided with close-fitting lids.

As to retail dairies, they ought to be registered and their keepers licensed from year to year. In every case the decision must be left with the local authority, which may refuse registration or licence for cause shown.

A very necessary provision is one which would compel dairymen and cowkeepers to notify all suspicious diseases in their cattle or workers. Still more important is a rapid method of stopping the sale of milk from any suspected dairy or byre. Power in this direction should be given to the local authority or a special committee appointed for this purpose. Of course, it would be necessary to protect the milkman from the arbitrary use of this power. He should be allowed to appeal to the Sheriff to have the interdict removed.

In the event of the stoppage being proved to have been unnecessary, the Sheriff will award compensation.

There are many points which require amendment in respect to the adulteration of milk. All preservatives should be forbidden. The sale of tubercular milk should be made a much more serious offence than mere adulteration.

There is much more that I would like to say on this most important subject, and I would have wished to go into fuller details on the points I have touched. I have, however, already too severely taxed your patience, and must conclude. If my opinions have appeared somewhat dogmatic, I trust that this failing will have the useful result of promoting discussion and provoking a free expression of opinion.

**THE MILK SUPPLY OF THE COUNTRY, WITH  
SPECIAL REFERENCE TO PROSPECTIVE  
LEGISLATION.**

**(b) FROM THE POINT OF VIEW OF THE LOCAL AUTHORITY  
OF A COUNTY.**

By A. CAMPBELL MUNRO, M.B., D.Sc., County Medical  
Officer for Renfrewshire.

THERE is certain convenience in having a discussion on "Prospective Dairy Legislation" opened by representatives of milk-consuming districts, of milk-producing districts, and of the dairy farmer. It is desirable that the subject should be regarded from every point of view. But it would be most unfortunate if in any case the matter were approached from the purely sectional point of view. I myself am unable to approach it in any sectional spirit, having seen almost as much service as health officer for a large urban district as in a county, and having been for more years than I care to number "a milk consumer." If the discussion is to have any useful result, it can only be attained by an effort on the part of all concerned to find points of agreement rather than to give expression to views of a sectional character. I think Mr. Gulland deserves the thanks of the community for the introduction of his Dairies Bill, which has at least had the effect of focussing opinion on the subject of dairy legislation, and of leading to a free discussion of the matter by all the parties concerned. I have been interested to observe that, while in various respects the bill has been subjected to criticism, on the whole it has been regarded as forming the basis of an effective measure of reform. Criticism appears to me to have been in many respects

justified, and, if the Government take Mr. Gulland's bill and the criticisms which have been based upon it, they will have little difficulty in formulating a bill which will cover the ground fairly and effectively.

Taking the bill as a basis, I should like to select the points in respect of which there appears to have been general acquiescence. For the sake of brevity, I shall put them dogmatically—

1. Subject to a dispensatory power in the hands of the Local Government Board, local authorities should be required to appoint veterinary inspectors, debarred from private practice in the district, for the purposes of the Dairies Act, the Public Health Act, and the Diseases of Animals Acts, powers being given to local authorities to combine for the purpose of such appointments.—I do not know that it is necessary to say anything in support of this thesis; a Dairies Act cannot be efficiently carried out, as a rule, without such an officer, and the dispensary power of the Local Government Board gives the necessary elasticity to the requirement. The veterinary inspector would be also the veterinary surgeon under the Diseases of Animals Act.

2. Local authorities should be required to cause every dairy and every milch cow in their districts to be inspected regularly within specified periods.—There is no doubt that generally in rural districts there is a lack of systematic inspection of dairies and dairy stock at present.

3. Every dairy should be held subject to an annual licence.—In this way the responsibility for the condition of dairies and the conduct of the dairy business will be brought home to the local authorities granting the licences in a definite and specific manner. This requirement in itself will bring about a reformation in the dairy business. There might be an appeal to the Sheriff in the case of a dairyman who felt himself

aggrieved by the declinature of the local authority to grant a licence.

4. Dairy regulations framed by local authorities should be subject to review by the Local Government Board.—I am aware that it is held that the regulations should be framed by the Local Government Board. There is no essential difference between the two propositions. In either case the regulations would be such as the Board would require, and I think it would facilitate the passing of a Dairies Act if the local authorities were placed in a position to represent their views to the Board before the regulations became law. As a matter of policy, I suggest that reformers would be well advised to accept a clause in the form suggested.

Any code of dairy regulations would contain regulations as to cubic space and ventilation in cow byres, and as to the protection of the milk against contamination, it would be foreign to the purpose of the discussion to enter into detail with respect to these regulations. But I suggest that, while it is easy to frame regulations on paper dealing with ventilation and precautions against the contamination of milk, such are difficult to enforce in practice. We have in Renfrewshire, for instance, a regulation that persons milking cows are to wash their hands before beginning to milk. Who can say whether this is done or not? I suggest, with respect to the protection of milk against contamination, that, in addition to any regulations prescribing methods, there should be a standard of the permissible impurity in milk. Dr. Orr, as the result of an elaborate inquiry into the question of milk supplies, carried on for over a year under the auspices of the County Councils of the East and West Ridings of Yorkshire and the Town Councils of Bradford, Hull, Leeds, Rotherham, and Sheffield, arrived at the conclusion that a fair standard for milk as it left the farm

would be that it should contain not more than 50,000 bacteria per cubic centimetre. I suggest that what the consumer is concerned about is the purity of the milk, not the methods by which purity is to be attained, and that a bacterial standard is the really important thing. Local authorities might be required to take so many samples (per hundred dairies per annum) of the milk as it leaves the dairies; the samples would be kept on ice until they reached the bacteriologist.

With respect to the purity of the air of byres, I suggest that samples of the air should be taken for submission to the analyst, and that a carbonic acid impurity of more than 6 parts per 10,000 should be dealt with as a breach of the regulations. Only one qualification will be necessary—that at the time the sample is taken there should be an external air movement of not less than 2 miles an hour; to take a sample on a still, foggy day would be unfair. With such a regulation the method of ventilation or the cubic space would be of no importance. What really matters is the quality of the air in the byre.

5. It should be the duty of the dairyman to give notice to the local authority of any cow suffering from any disease of the udder, or any sore upon the teats accompanied by suppuration or bleeding.—The principal object of such a requirement is, of course, the early detection of tuberculosis of the udder. It has been suggested that this imposes too onerous a duty on the dairyman. I cannot acquiesce in the suggestion. All that the requirement involves is the writing of a post card—in Mr. Gulland's bill the notification is to be addressed to the clerk of the local authority. I concur in the view that it would be simpler and more efficient to have this notification sent direct to the veterinary inspector.

6. Local authorities should have power to dispose

temporarily or permanently of any cow whom the veterinary inspector suspects to suffer from tuberculosis of the udder, subject to an appeal to the Sheriff and to compensation in cases in which a temporary or permanent seizure has been made in error.—Various suggestions have been made for the amendment of the clauses in Mr. Gulland's bill dealing with this matter. On these I offer no comment. To enter into details in a discussion such as this would be to shunt the discussion into side issues.

7. The medical officer of health of a milk-producing district should be required to give intimation forthwith to the medical officer of the district to which milk is supplied of any case of infectious disease occurring amongst persons having any connection with a dairy business.—This is a somewhat onerous duty, but I think the medical officers of rural districts would be prepared to undertake it in the general interests of the community.

8. The clause in Mr. Gulland's bill requiring the dairyman to call in a medical man in the case of any person suffering from "any illness attended by sore throat, diarrhoea, lassitude, or weakness," and the medical man to report to the medical officer of health "the precise nature of such illness," should be embodied in any Dairies Act.—With an experience of a quarter of a century as a medical officer of health, I regard this clause as the most important in the bill. I confess that I am not prepared to take the view held in some quarters that tuberculosis is chiefly spread by milk, and that protection against tuberculosis should be the principal object of a Dairies Act. I do know that some of the most calamitous outbreaks of infectious disease have been due to unrecognised or concealed cases in connection with dairies, and I am satisfied that a drastic amendment of the existing law is required. It has

been suggested that the dairyman's intimation should be to the medical officer of health direct. Such a condition would render the clause practically a dead letter. It would lead to delay in any case, and the suggestion that the medical officer of health in the case of Scotland's rural districts should visit every case of illness under this clause is absurd. Dairyman who had a grudge against the medical officer could lead him a nice dance by intimating to him every trivial illness which occurred about their dairies. The medical officer, having a report from a medical man, would at once be placed in a position of responsibility in connection with the case.

9. The clause in Mr. Gulland's bill (clause 14) providing for the stoppage of infective milk supplies should be expanded to meet the case of a milk supply which is under suspicion but against which there is nothing amounting to "evidence," by the addition of a sub-clause empowering the medical officer of health of the district in which the milk is sold to issue a notice *ex proprio motu* to the dairyman to cease forthwith supplying milk, such notice to be valid for a week, the dairyman to receive compensation for direct material loss from the local authority should further inquiry show that the suspicion was unfounded.—In a recent milk-spread epidemic in Glasgow much undeserved odium was thrown upon the Health Department by members of the public, and even by members of the local authority, because the Health Department was unable at the outset to fix upon the milk supply which was the cause of the outbreak. Such critics have no conception of the difficulty of such an inquiry. Several milk supplies may at the outset appear to be inculpated. The matter will probably be cleared up in the course of two or three days, but in the meantime the medical officer ought to have the power to protect the people

of his district against all risk of infection. At the same time, it would be highly unjust that a dairyman, whose milk was innocent of harm, should be penalised. The amount of compensation would be a bagatelle to the local authority, but it would be a matter of importance to the unfortunate dairyman.

10. The local authority in whose district milk is distributed should have power to require samples of milk to be taken from any cow or cows whose milk was under suspicion.

11. Local authorities should be required to appoint small executive committees, with full powers to act in cases of emergency.

12. There should be a right of appeal by the local authority of a milk-consuming district to the Local Government Board in the case of the failure of the local authority of a milk-producing district to carry out the provisions of the Act.

## THE MILK SUPPLY OF THE COUNTRY, WITH SPECIAL REFERENCE TO PROSPECTIVE LEGISLATION.

(c) FROM THE POINT OF VIEW OF THE DAIRY FARMING INTEREST.

By Mr. JOHN FINDLAY, Springhill, Baillieston.

MR. PRESIDENT, LADIES AND GENTLEMEN,—It is generally admitted that this is one of the most important subjects which can engage the attention of the public, and more particularly of such a Congress as this, composed of representatives of the principal local authorities of the country. Allow me to thank your Council for the great honour you have done me in asking me to bring some of the views of farmers before such an important meeting. There appears to be a good deal of misunderstanding between the public, as represented by the authorities, and the producers of milk, and as I understand it is your wish to hear both sides of the question, I hope that in this discussion we may be able to remove, to some extent, the feeling of distrust which in the past has caused a considerable amount of friction.

It is the opinion of dairy farmers that many exaggerated statements, by officials and others who ought to know better, about the danger to the public health from the use of milk, are quite unfounded, or are not supported by the necessary evidence that such charges should have. Milk has been blamed for the excessive death-rate of children, while, in the opinion of many just as able to judge, the belief is that, if more milk



were supplied to children, their health would be very much improved.

Some time ago I suggested to a Glasgow official that it would be a very good experiment to take two similar tenements in one of the lowest streets of the town and give the children of one of these a liberal allowance of ordinary milk for a few months (the longer the better); we would then have practical demonstration of whether the milk was doing good or harm; the cost would not be great, and the information would be most valuable. I think it would set at rest some of the libels which are being freely laid to the charge of the milk seller. Many are of opinion that it is the want of milk which is the cause of the death-rate in children.

All dairy farmers are not perfect by any means, but the great majority endeavour to carry on their business in a manner beneficial to the public, and also with credit to themselves. It is impossible, with the time at our disposal, to consider all the aspects of the subject, but we may touch on some of the more important points.

*The Need for Legislation.*—Within the past few years there has been a great deal of uneasiness in the public mind about the dangers arising from the use of milk, and the time has probably arrived when something should be done to allay that feeling, and, if legislation can accomplish this, I am sure the dairy farmers will be only too pleased to render their assistance. Judging from the action of the local authorities, one would think that all the dangers to be guarded against were to be expected from milk and butter produced in this country, and more especially in the neighbourhood of large towns. No doubt many epidemics of fever have been caused by infected milk, but it is chiefly from the danger of tuberculosis that the present uncertainty exists.

In the Report of the Royal Commission on Tuberculosis of 1905 it was stated that Drs. Martin and Woodhead found that butter, buttermilk, and skim milk from a cow with tuberculous udder were very virulent in causing tuberculosis in test animals, and these experiments have lately been confirmed in the United States by the Agricultural Department, where 44 out of 50 guinea pigs died from generalised tuberculosis after being injected with butter which had been obtained from the milk of a cow with a bad tuberculous udder. The experiments show that the bacilli were apparently as virulent when the butter was ninety-nine days old as it was at the beginning; so that, if legislation is necessary to produce healthy dairy produce in this country, it is quite evident that similar restrictions must be imposed on the producers of the foreign article, but I am sorry to say that, so far as I have seen, little or no effort has been made by the authorities in this country to cope with the difficulty. There is no question but this is a distinct hardship to the dairy industry of Scotland.

*The Dairies Bill.*—As you are probably aware, an important bill was introduced this year by Mr. Gulland, and it has received considerable attention, not only from local authorities, but also from agricultural societies, particularly the Highland Society, and the Scottish Chamber of Agriculture. We might consider one or two of the more important amendments which have been suggested by the Scottish Chamber, and here let me refer to a remark that was recently made by the President of the Sanitary Congress at Dunfermline, who twitted us for referring to the sanitary inspector while he was not mentioned in the bill. Well, gentlemen, when a farmer sows wheat he expects that straw will grow up, and when this bill is passed we naturally expect the sanitary inspector will

appear on the scene, so I hope it will not be out of place for me to refer to some of the points that are not specially mentioned, because they have a considerable bearing on the effects of the bill. There is one very important clause, that in regard to licensing. This may be necessary in towns, but is not required in the counties. Just now we have registration, and the general feeling is that it is quite sufficient if properly carried out. We may assume that regulations will be made, and, if the local authorities think that the farmer has committed a breach of these regulations, they can summon him before the Sheriff, who will decide whether there has been a breach or not; but, if it be a case of licensing every year, you will put the licensing authority in the position of the Sheriff, and they, by their power to withhold a licence, will decide whether he has committed a breach. I think that is putting the authorities in a false position. Some of them have not sufficient knowledge of the subject, and they are often guided by their officials, who may not have much practical experience, and insist upon alterations which are not improvements, and in other matters may be unnecessarily exacting. The existing regulations, if properly carried out, seem to work well enough without licensing, in support of which I may quote the statement of Mr. John Frew, President of the Sanitary Congress already referred to. He claimed that, as inspectors of dairies, they had during the last seventeen years been the means of carrying out a great reformation on the dairies in Scotland. In the county which he represented there were about 300 dairy farms, and nine years ago only 10 per cent. of these had gravitation water supplies, mostly of doubtful character, and at the present time 95 per cent. of them have abundant water supplies, not only for the dairy premises, but also for the fields. I am

not in a position to say that all the counties in Scotland have made a similar advance, but one can easily see that in many places a decided improvement has taken place, especially where the present Acts have been administered in a reasonable and intelligent manner. Now, if this can be accomplished under the existing regulations, there does not appear to be much need for further powers in connection with premises.

*Some Points in Construction.*—The cubic space of byres is one about which there is considerable diversity of opinion, and the Local Government Board have issued model regulations in which they recommend 800 cubic feet per cow. They may not expect to get that capacity, but the question for us to consider is, is such a cubic space necessary or desirable? I have no hesitation in saying that for the production of milk in winter a byre of 500 cubic feet can be made quite as healthy as one of much larger space. We naturally ask, what evidence have the advocates of large byres brought forward to prove their superiority? but not much has been forthcoming. It is generally recognised among practical people who have considered this question that 500 feet per cow is quite sufficient for a model byre for Ayrshires, with perhaps a little more for larger breeds. Some districts, however, have more and some less than 500 feet, even for new byres. And when any authority demands 600 or 800 feet, we think they are unreasonable. The larger byre may cost 40 or 50 per cent. more to build and maintain, it will in most situations be too cold in winter, and, as those who supply winter milk desire to keep their byres comfortable, they will be likely to reduce or close the inlets for fresh air, which is very undesirable. With a smaller byre the heat is more easily maintained, and consequently, in practice, a greater quantity of cold air will be admitted.

The more this subject is understood we find people recognising that this cry for cubic space is rather behind the times. If the cows were going out and in every half-hour, and the byre not well ventilated, one can easily understand that the supply of fresh air in the larger byre would take longer time to get contaminated than in the smaller byre; but when cows have to be continuously inside we must look for a fresh air supply, not to the large cubic space, but to the continuous supply of fresh air from the outside, which we may call ventilation. This, gentlemen, is the important point. What benefit can a cow get from a large air space 10 or 20 feet above the floor? To me it seems ridiculous and most unscientific to build a large byre for the purpose of giving fresh air to cows. All that is required is to admit the air in such a manner that it can reach their nostrils in as pure a state as practicable, without causing cold draughts on the bodies of the animals, and the expired air should leave the building as soon as possible. In my opinion, this can be accomplished more easily in a small than in a large byre. What would you think of an engineer placing engines of 800 h.p. in a ship when it had been proved that those of 500 h.p. were sufficient for the purpose? If he continued to act in this way he might not be long at the business.

There is one objection to the ordinary system of ventilating byres. Very few of the inlets or outlets are constructed in such a way as to be easily regulated, with the result that most of these openings are too small for certain kinds of weather, and in winter, to keep out the cold, they are often stuffed with straw, which is not always removed when milder conditions prevail. I have found that air inlets of about 30 square inches per cow, if under easy control, give great satisfaction to those who have tried them. Of

course, the openings must be regulated according to the weather. It is also observed that cows appreciate the fresh air by sniffing at the openings when they have the opportunity. Where inlets are not easily regulated it is usual to have them near the wall head, or inclined upwards towards the roof. This plan seems to me not to supply fresh air to the cows, as it must be more or less contaminated before it reaches their heads. Not only should the quantity be regulated, but care must be taken that cold draughts do not play on the bodies of the animals. In the system I have introduced, the openings are about 5 feet 6 inches from the ground. The air is deflected towards the floor near the wall where the cows can breathe it with safety. The only outlet is at the ridge, which can be opened 14 inches wide for the full length of the byre. This is covered by movable glazed sashes, which are worked by one lever, and can be easily regulated as desired; no other windows are necessary. I have had this system in operation for about twelve years, and have applied it to many other old and new byres, and in every case it is giving unqualified satisfaction.

We now come to a more difficult question. What is to be done with old byres? Some local authorities, and I understand also the Local Government Board, would require that these should be made to conform to the standard for new byres in, say, a time limit. I do not approve of this for various reasons. These byres may have been altered and improved at considerable expense to meet the requirements of the existing regulations, and, it may be, the alterations were executed to the satisfaction of the sanitary officials; and to ask proprietors to provide more cubic space by heightening walls does not appear quite reasonable. Gentlemen, the standard to apply to these old byres, as well as to new ones, is not the minimum for new

byres, but "what is necessary and proper for the health and good condition of the cattle therein." These words are quoted from the old Dairy Orders in Council, and I would strongly recommend them to the serious consideration of those who think that everything about a byre can be stated in figures, and that what does not comply with their bye-laws must not be allowed. Yes; cows can be healthy in old byres which do not come up to all the requirements of some authorities. They may need a new floor, and will probably require ventilation and some light, but all the circumstances must be taken into consideration, and the standard of "what is necessary for the health of the cattle" applied with practical knowledge and common sense. Many cases have come to my knowledge where a different course has been followed, and probably it is these cases which have caused me sometimes to differ from inspectors, and perhaps speak rather strongly.

There is one case of a farm situated in a burgh, but for practical purposes, so far as fresh air and open country are concerned, may be considered as in a county. Plans were submitted showing a byre for twenty cows at about 500 cubic feet. At the request of the inspector, this was modified to accommodate eighteen cows. The plans were passed, and, when the byre was finished, the farmer applied for a licence for the eighteen cows, but one for only fifteen cows was granted, so as to allow about 800 cubic feet. The inspector admitted it was a good byre for eighteen cows, but said there were the bye-laws, and what could he do. The farmer, however, filled the byre, and was soon ordered to remove three cows, or he would be prosecuted. He has found that this byre is too cold, and not conducive to the health of the cows; not nearly so comfortable or safe for newly-calved cows as another

smaller old byre which is in a more sheltered part of the steading.

The model regulations require 50 square feet of floor space per cow for all byres. This to practical persons is so unreasonable that I need not take up your time discussing it. Forty feet is ample for double byres, and less might be sufficient in some cases. I know of one important burgh where 60 feet were required, and its neighbour, not to be outdone, have a bye-law of 84 feet per cow. Perhaps they have not much experience of keeping cows. All these bye-laws should be submitted to, and have the approval of, practical men, and I would suggest that, as they have to be applied to buildings whose situation and exposure differ so widely, no hard-and-fast rule as to cubic space should be insisted on. It would be much safer to recommend than to order a certain minimum, and this applies in connection with several bye-laws. I know this has been tried in Ireland with very beneficial results. Most people do not like to be driven, while they are quite willing to be advised. Sanitary inspectors will not approve of this proposal perhaps, as it may make their work more difficult, but it might make them more amenable to reason, and the results, I believe, would be for the general good.

Referring to old byres, we do not find the authorities insisting on old dwelling-houses being made equal to the standard for new ones; if they serve their purpose in a reasonable way they are allowed to remain, and I think byres should be dealt with on the same principle. Further, how often do we see, especially in towns, houses erected in conformity with bye-laws which, from their surroundings, cannot by any stretch of imagination be regarded as perfectly healthy dwellings? At the same time, I frankly admit there is a very large number of byres which are very

unsuitable for keeping cattle. Some of them may not be worth spending money on, but a good many could be made into satisfactory premises at a moderate outlay. In this connection it may be worth quoting the opinion of Mr. John Speir, Newton Farm, and Mr. Young, editor of the *North British Agriculturist*, who have visited Denmark on several occasions. They say that in regard to cubic air space, ventilation, cleanliness, and water supply, three-fourths of the dairy farms in Denmark would be very speedily dealt with if they were under the supervision of an up-to-date inspector, and some members of the Royal Commission on Tuberculosis, who visited that country some years ago, were convinced from what they saw, that many obscure outbreaks of typhoid fever in this country might be due to the use of Danish butter.

You will observe that in the bill it is proposed to give the Local Government Board power to add to or take from any of the proposed regulations, which really means that they can make regulations as they think fit. Now, I think it is far better that local authorities should make regulations, and these regulations should simply be confirmed by the Local Government Board, as at present, or, better still, by the Board of Agriculture. It is also very important that, whatever regulations are made, they shall not take effect unless they are fair and reasonable, and, in so far as they relate to the structure of any building in which cows are housed, "are necessary and proper for the health and good condition of the cattle therein." This is a good clause, and it is one of the few that enables farmers or proprietors to say to the inspector, you are asking more than is reasonable, therefore your demand can have no effect. Unless we get such a clause as this, our position will be extremely difficult.

*Inspection of Cows and Compensation.*—If legislation

is required at all, surely it ought to be for this purpose. We as farmers quite approve of this proposal. We do not want to have in our herds any animal which is giving milk that would injure the public, and if a veterinary surgeon can help us to find out these cows we will only be too pleased. I refer more particularly to tuberculosis of the udder, but I think the first thing should be that all those cows which show distinct symptoms of tuberculosis should be killed. I do not refer to the tuberculin test, because that is a subject on which we are not agreed. But I think that the cow that is far gone with tuberculosis constitutes a very serious danger for the infection of the other cows in the byre. No doubt some of these tuberculous cows are giving milk which may be harmless, but, in my opinion, the sooner they are killed the better for all concerned, and a reasonable compensation awarded to the owner, say, three-fourths of their present value either as beef or milk producers. Should it be found they were free from tuberculosis, full value should be paid. The price for any of them would be very small, and if farmers knew they were to get compensation they would be the first to inform the authorities when they saw a cow of that kind, and the duties of the inspector would be much simplified. By adopting such a suggestion as this, you would secure the co-operation of the farmer, and the cost to the public would be very small indeed.

Cows with tuberculous udders could be dealt with in the same way, and, as far as investigation has gone, the number of these is very limited. In the Lower Ward of Lanarkshire, the result of a recent inspection of the whole district showed the proportion of cows affected with tuberculous udder to be only 1 in 500, and a few years ago, of 5000 cows examined in London, a somewhat similar proportion was found affected, so

that the danger is not so great as some alarmists would have us believe. There are various opinions as to who should pay the compensation. Those in the county naturally think the cost should not be borne by them, as the cows are killed for the benefit of the town consumer. Perhaps it would be fair that, as both consumers and producers of milk would benefit, the compensation should come from the Imperial funds. In that case the work would require to be under the supervision of the Board of Agriculture, and could be carried out by local men. It might be provided that compensation could be withheld for animals which were kept in unsuitable premises, and so act as an inducement for the improvement of these premises. It sometimes happens that outbreaks of fever are traced to milk, and it would be proper that the supply should at once be stopped pending investigation. Surely it is reasonable that the dairyman should receive compensation for any loss he should thus sustain in the public interest. Local authorities should encourage those in the dairy trade to notify all suspected cases of infectious disease in their families, by paying them for loss of wages or otherwise, and so remove the temptation to concealment. They should also notify dairymen of all infectious disease among their customers, in order that special care may be taken to prevent the infection reaching the dairy. It is quite a common practice for retailers' milk cans to be left in the houses of customers for a considerable time, and, should fever exist there, the milk cans are a likely means of conveying the infection to the dairy premises, with the results too well known.

It is in the public interest that local authorities and cowkeepers should work in harmony, and, if the former would show a little more consideration for the difficulties the milk producer has to contend with, the latter

would not be slow to reciprocate the feeling. We want more mutual understanding in this business—a blending of the scientific knowledge of the medical man with the practice of the dairy farmer. On a subject such as this, a friendly exchange of views by persons from different standpoints must be an advantage. We may differ on procedure, but I trust we are all working for the same object—the economical production of health-giving milk from healthy cows.

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DISCUSSION.

County Councillor THOMAS SCOTT (East Stirlingshire)—The Dairies (Scotland) Bill has been discussed by a number of agricultural societies within the last few months, including the Highland Society and the Scottish Chamber of Agriculture, but how few of the farmers taking part in the discussion are selling milk to the consumers? The object of the bill is said to be consolidation, and to give it practical force, and I believe it would put small dairymen and crofters from keeping cows or selling milk. As to clause 3, it would be a great pity if the Local Government Board would require the local authority to appoint a veterinary inspector of high authority and not residing in the district, but in a city, having charge of two or three counties (if he can get them), and appointing sub-inspectors under him. Have we not enough of that already, and taxes still increasing? Just fancy one of these men going into a byre where there is abortion, and he examines all the cows' vessels and teats. He washes his hands on leaving, but goes into the next clean byre, and abortion is almost sure to follow. I never had such a scourge, but would rather give up keeping cows if that inspection was to take place. I once had tuberculosis, and I bought it in Ayrshire, and would not care to buy it again. I prefer to breed my own stock, and give them the open air cure in winter by being kept out from daylight to dusk in a rough and sheltered field. They must, however, be kept comfortable during the night, irrespective of the air-space fad. While a byre in a low-lying place or in a town may require 600 or 700 cubic feet, a byre at the most of farms or on a hilltop would be too cold in winter with 400 cubic

feet. I know of several who had to put a loft in because their byre was too cold in winter. Dairies and dairy farms are very different from ice-cream shops, and nearly in all cases are conducted by a very careful, intelligent, cleanly, and healthy class of people. Look at the sturdy servant lasses about a farm, the very picture of health, who scarcely have any illness, unless after a half-yearly feeing fair, with several hours' dancing in a heated hall, and by eating all sorts of pies, &c., made several days before. They may have lassitude and the other troubles after; but should they catch infection, the milk gets blamed, and the farmer has to suffer. I would like to caution sanitary inspectors (1) that, when they are notified of a case of infection, they should not rush to the milk supply as the cause without suspecting and inquiring about fish, fruit, or other eatables being days too old, the latter being the cause of many troubles; (2) that when sampling milk in a milk shop or on the street they should also get a sample direct from the cows for comparison, so that the farmer may be found still honest, and not branded like a criminal, and may give up the trade in disgust. I consider dairy farmers are well enough handicapped already without any more inspection or registration, and get many warnings by seeing reports of prosecutions now and again. I would not send milk to Glasgow or Edinburgh if offered double price for it and be subject to their inspection, as many hardships have been incurred both to landlord and tenant by premises being condemned, and many a farmer has had to leave his farm rather than erect a new steading. We supply about twenty tenants and a few others with milk who come to the door for it. Some of them do not appear to know that the can or jug should be thoroughly clean. I have heard the late Mr. Howie say that it would surprise many to see the dirty bowls and jugs presented to him on the street to get milk in, and where would it be placed in the house? A few months ago one of my daughters got such a dirty jug that she could not put milk in it. She went to the pump to scrape and clean it, and found out it was cracked, and it fell in pieces, and a new jug had to be supplied. Mr. Gulland's bill is entirely one-sided. There is not a single word in it about the users of milk, and it is there where all the trouble takes place. The Milk Control (Scotland) Bill of a later date presented by Mr. Watt relates more to rural and urban districts, but has many objectionable clauses in it, and should also be opposed as expensive and oppressive.

Mr. JOHN DRYSDALE (farmer, Port of Menteith)—Mr. President, ladies and gentlemen, as one who has been engaged for the last twenty years in an honest endeavour to produce clean milk from healthy cows, I very heartily concur in the discussion which has taken place and in the papers which have been read. Exception might be taken to the rather sweeping remarks of one of the speakers (Dr. Cullen), but I can assure him that there are many men and women engaged in dairy farming who go about their business in the most scrupulously clean fashion—(applause)—and I think that men like him can do a great deal to encourage that class. With the average man or woman milk is milk, and they get the same price for milk produced under insanitary conditions as milk produced by people who use the most scrupulous care. That is where the medical gentlemen might co-operate with us. With the rest of the paper I am in hearty sympathy. We are all in favour of inspection both of premises and cows, and in favour of the strictest conditions being laid down as to how the byres should be kept and how the milking should be conducted. I am one of those who have insisted on the milkers wearing clean overalls every morning, and in having every vessel clean, and the hands washed after every cow is milked. I don't know who the authority ought to be, but there should be surprise visits paid to the byres occasionally by some one authorised by the public health authorities to see that reasonable and proper conditions are carried out during milking, because I know that when the eyes of the master or the mistress are not watching closely, some of the servants are very apt to scamp some of that necessary work. Again I say that the medical officer could do something to encourage those of us who are producing milk under proper conditions, and help us to get a better price than producers who don't take the same trouble. Then, again, I think that our city authorities and our local authorities might do a great deal to co-operate with us in that matter. I am bound to say that the city authorities are often at fault. I can say from experience that the condition in which the milk vessels come from the city is little short of a scandal. By their bye-laws every vendor of milk is bound to cleanse the milk vessel when emptied and before it is returned to the milk producer, but what is the use of bye-laws if they are not given effect to? I have got milk vessels back from the city after having been kept in a back shop for trade purposes for a week in such a condition that one felt almost

ashamed to ask any respectable young woman to clean them. The city authorities ought to see that their own bye-laws are respected, and inspect these dishes and see that they are cleaned properly, otherwise you are handicapping the dairy farmer who has to deal with dishes kept under these conditions. Then, I think the railway companies might assist us very much. They don't provide any extra staff for the handling of the milk; and they don't, so far as I am aware, especially in Scotland, provide any extra conveyance. The fact is that what they get for the conveyance of milk is all found money, and I think we ought to insist on properly equipped vehicles for the conveyance of milk, instead of having it, as at present, mixed up with all kinds of merchandise in course of transit. Then I think the railway companies ought to be compelled to have some proper place where milk arriving overnight should be stored till it is taken out in the morning. It is shameful to see milk subjected to the heat and dust, as at present. There is another way in which the consumers themselves could very much help us—by insisting on milk being retailed in bottles or other closed vessels. Milk is easily contaminated, and how does one expect to see it kept pure if you see a man on the milk cart filling out the milk when the municipal dust cart is passing by, with a strong wind blowing dust and filth of all kinds into the milk? There is another way in which I think the authorities could co-operate very much and assist us. There ought to be a far more rigid inspection of the retail shops in which the milk is sold. Some of them are scrupulously and admirably kept, but what about the others, where you see the milk being kept in open vessels in anything but a pure atmosphere? I have seen quite a thick coating of dust floating on the milk in some of the milk shops in lower-class districts, and I say it is a great danger and leads to contamination when milk is allowed to sit exposed to every impurity that may be floating about. Then, what about the case of the mother who flies to the milk shop from her sick children, and with the clothing on that she wore in the sick room? These are cases in which the authorities and consumers might co-operate and assist the dairy farmer very much. It is too much the custom to blame the dairyman. I don't say he is always free from blame, but there is considerable blame often in other quarters as well.

Mr. WILLIAM W. KELSO (chief sanitary inspector, Paisley)  
—Mr. President, ladies and gentlemen, I have just had a

telegram from Mr. David Dunbar, who regrets that he is prevented from being present to-day. Mr. Dunbar says in this telegram that he thinks the chief points for consideration are—first, why should milkers and persons handling milk not be licensed and subjected to periodical medical examination? secondly, he would prohibit the selling of milk of newly calved cows; and, thirdly, he would give power to authorities to remove any sick person living at any farm or engaged in handling milk to a place of reception till the illness has been diagnosed. So far as I am concerned, I will not intrude further in the discussion at present, but I may have something to say later on.

Dr. C. PARKER STEWART (medical officer of health, Perth)  
—Mr. President, ladies and gentlemen, the importance of this matter is well worth the trouble taken by the first three gentlemen whose papers we have just listened to, and I am sure the papers are well worthy of the subject under discussion. The interest in this question to a large extent in previous years was confined more to the large cities. It has now come to tap the smaller burghs, and only last year its interest was intensified in the city of Perth by a case that occurred. This was a case in which a dairyman was just at the outskirts, but within the boundary, of the city of Perth, and who had a cow which was far advanced in tubercle of the udder. Our veterinary inspector diagnosed the tubercle, and notice was given to the dairyman, drawing his attention to the state of the cow and forbidding the sale of its milk. We had no further power. The dairyman at once, since he was going to be prevented from getting any of his milk disposed of, sold that cow to a neighbour who was just outside the burgh, with the result that the milk which we condemned very likely still got into Perth. At that time Perth was engaged in bringing forward a Provisional Order, the main object of which was to get an extension of the burgh, and it was thought advisable that the local authority might take advantage of that Provisional Order to incorporate into it certain clauses which might deal with the meat and milk supplies. These clauses were very simple, and related to the registering of the names and addresses of persons supplying milk to the town. All the milk supplied to Perth practically comes from the county. A clause was also sought for the inspection and examination of cows, and another clause for preventing the sale of milk from diseased cows. These three clauses came before a Royal Commission not two months ago. Previous to drawing up the clause,



we got the consent of the local county authorities to these sections, and we also got the consent of all the butchers in the city that any meat that came into the town would go through the clearing-house before being exposed for sale; but when the Provisional Order came up before the Royal Commission we got a surprise when it was opposed by the Local Government Board. The Local Government Board sympathised with our object, and also told us that they were pleased with the progressive action which burghs were taking to conserve the health of communities, but they were unable to give their consent. Their main argument, so far as I was able to learn, was that the Government had in view a certain bill which contained those powers—an argument which his local authority considered a very good reason why the clauses should be allowed to pass. I am no politician, but I know that the preparation of a bill and the passing of a bill are two entirely different things; not only that, but, at a time of political strife, one never knows what the House of Lords are going to do. With regard to Mr. Gulland's bill, one of the provisions is the five years' period, after which time the dairyman can get no compensation. I would be inclined to double that period. I have often wondered if the dairymen—those who possess a large number of cows—could not by some system of insurance protect themselves. For instance, in Perth market every animal which is bought at the mart is insured by the seller and by the buyer at a cost of 6d. The animal is taken down and killed in the slaughter-house, and, if condemned for tubercle or any disease—it does not matter which—the buyer gets the full value refunded. In order that the butcher may be encouraged to buy superior meat, they make this stipulation, that no animal must be bought under a price of £10. Perhaps Mr. Findlay might be able to say whether such a system of insurance could be adopted, so that after ten years this system might work. I may say that I was deeply interested in Mr. Findlay's most practical paper, and it struck me, with regard to this cubic space—of which I have no practical knowledge—that, instead of the cubic space being extended in an upward direction, I would like to know whether an enlargement of the superficial area would not be more advisable, in this respect, that by enlarging it the proximity of one cow to another is decreased. With regard to the drastic regulations, I would be no party to any regulation that might prove so expensive to the small owner that he could not derive an existence or to the large owner compelled to raise the price of milk to nearly the price

of whisky. As regards the licensing, I can only say that the dairyman would have no greater grievance than the publican at the present time. I am much obliged to Mr. Findlay for his paper and the hint in the last part of it, and I see the importance of it. It never struck me before, and so much am I impressed that I hope when I return to the Fair City to be able to formulate a scheme in which every dairyman will be informed of every infected house and also any person who supplies the dairyman. (Applause.)

Mr. ARCHIBALD M'NEILAGE (editor, *Scottish Farmer*)—Mr. President, ladies and gentlemen, I can understand why some of the other gentlemen who have stood here have been speaking, but I honestly confess I do not understand why I am here at all. The only explanation that I can think of is that I have been asked to come by your secretary, and, if you blame any one after you have heard me, blame him and not me. There are one or two points that I wish to emphasise. In the first place, as the editor of an agricultural paper, I wish to thank Mr. Gulland for introducing his bill. A bill does an immense deal of good in focussing public opinion and in bringing men of different views to converge their views on one point. I believe that Mr. Gulland, in this matter, has rendered a distinct service to the farming community. I presume he is the principal author of the bill. Suppose it never goes any further, it is one of the best things that has been done for some time in the way of bringing those whose interests have been regarded as conflicting together and converging them on points on which they are at one. That has been admirably brought out by the three papers that have been read here. There is not very much difference between them, and it would not be very difficult to find a common ground from the three papers for the benefit of the community at large. I wish to emphasise this point—in order to have a healthy milk supply, we want healthy cows, clean byres, clean agents, clean distribution, and clean storage. (Hear, hear.) "Storage" is not a very good word, but you possibly understand what I mean. The complaint of the farmers is that, while there has been an amazing amount of attention bestowed on healthy cows, clean byres, and clean agents, there has been nothing said about clean distribution and clean storage. It has been held as a proved thing, although it is not proved at all, that the chief sinners in respect of the distribution are the farmers and those who own cows, whereas the chief sinners are not the farmers nor the cows, but those who get the milk to distribute and those

who get the milk to keep and consume after the milk has been distributed. Long ago I said in Glasgow, in the presence of a number of medical men, that the remedy for all this was to give the cow a chance. If she gets half a chance she is the best friend that the human race has, but the worst of it is that the cow does not get half a chance, and she and the man who owns her are handicapped by all sorts of restrictions, whereas there should be some attention paid to the other people interested. The people who own cows do their best to keep them clean, but I think something more might be done by municipalities to encourage those who are doing their best to provide a wholesome supply of milk. The farmers are threatened with pains and penalties, and are treated as enemies of the human race. Suppose you adopt something else, and encourage the men who are doing their level best to put a proper supply before their customers, so as to get a price commensurate to the increased price in their method of work as compared with the price that is paid to the man or woman who sells a white liquid that they are good enough to label as milk. There is a great difference between the genuine milk put on the market from the healthy cow and the wholesome farm and the white liquid which goes under the name of milk and which is so often permitted to be sold under conditions that are not conducive to health. I am an old milk-boy myself, and I sold milk for many a day. I never knew it was such a difficult thing to sell clean milk till I began to hear sanitary inspectors talk about it. Why, my old aunt, for whom I sold the milk, washed her byre three or four times a week, just the same as she washed her kitchen floor, and that is away back more than thirty years ago, and there were not so many sanitary inspectors wandering about then as there are now. We talk about overalls and washing hands, but in my native parish of Rosneath I could take you to a farm where for twenty-five years and more the milkers have washed their hands after milking every cow. A running pipe is laid into the byre, at which they washed their hands, and a clean towel is provided for drying them. There is nothing amazing about these great discoveries that have been made. The fact of the matter is that what is needed in this business, as in every business, is some slight regard for the royal law—to bear in mind that our neighbours' interests are involved, and I hope it will be made a clause in any bill that there must be notification where there is any disease. I am not in favour of saying anything about lassitude. God help the farmer who has to report every

morning that his servants show lassitude. He will be the best customer for the Postmaster-General in this country. Mr. Sidney Buxton will have a better report to give than he had last year. But let it be a settled point that, wherever there is disease in any house, there must be notification of the disease. Do not ask the farmer to diagnose the disease. Let him notify the medical officer of health, and let the responsibility rest on the men who ought to know about that, although sometimes they do not. (Laughter and applause.)

The PRESIDENT—I have a letter here from the Rev. Dr. Gillespie, Mouswald, who regrets his inability to be with us to-day. The discussion is now open.

Dr. DOUGLAS (Lanarkshire)—Mr. President, ladies and gentlemen, I should like to concur with the last speaker in congratulating our friend Mr. Gulland upon the bill which he has introduced. Whether it becomes the law of the land in its present form or not, I think Mr. Gulland has done excellent service—a service not always rendered by Parliamentary bills, because his bill is not a party one. A great deal of disunion used to exist on this subject, but there has been a very remarkable co-operation of the persons interested in it from different points of view, and I think our conference to-day is an illustration of that, so far as it has gone. It becomes perfectly plain that those who are interested from the two opposite points of view of producer and consumer are really driving at the same thing—the production of a good thing under good conditions. If there are others who have different views, no one is going to defend them and no one can speak for them. I think this conference is timely in respect of the bill that has been produced, because it brings us to a new stage in the proposals for regulating the milk traffic, and I sincerely hope that we are now reaching the point at which we shall have legislation in settlement of the difficulty and an absence of those controversial matters that have hindered us for so long. I therefore wish to address myself to one or two of these points. The bill introduces in a greater measure than hitherto the local authorities, and I think that has raised in the minds of certain of the traducers of the bill a feeling of insecurity, as if their interests were to be too largely regulated by those who are not acquainted with their business, and I believe the great majority of those who are engaged in the production are extremely anxious that there should be—what there might be in a very short time—some security for fair consideration by persons familiar with the

actual facts of milk production. A great deal must lie with the local authority; and I think, for my part—and I believe the opinion is very widely held—that what is essential in any measure of this kind is that there should be provision by which the Local Government Board shall consult persons who are specially, peculiarly, and practically competent to advise them as to what is good business and what is not good business in dairy and farm management. Well, then, there is one matter from the point of view of public health—because that is the only point of view that we ought to consider this question—and that is, that whatever we do in the way of legislation we ought to be very careful not needlessly to burden or discourage the milk-producing people. If you make the production of milk more costly or a less attractive occupation, you will inevitably raise the cost of the milk to the consumer, and if you make milk less accessible to the poorer children you will be doing far more harm than good. You have a widespread feeling that the annual licence offers a possibility for unsettlement and insecurity. If that is the case, surely it is possible by some other means of annual revision to get at the same points that you require, and what you require is regular supervision and complete control, and the power of putting out of the business persons who insistently engage in bad conditions of production. We do not need to call him up every year, but most particularly great care must be taken not needlessly to increase the cost and burden of production. I don't think, for my part, that there is anything in the essential parts of the bill that tend in that direction, but I do think that it is to be guarded against, and particularly all those small responsibilities and small new duties, such as calling in the doctor and the veterinary surgeon every time that the least difficulty appears. I think this ought to be minimised as far as possible, but the simple duty of reporting ought to be the only part in the whole of the future business and investigation to be left to the public board. Another question is the question of compensation. There, again, if we impose an undue burden on the producer in the general interests you will be placing too heavy a burden on the industry, and it will be much cheaper to secure the objects of the bill if that subject be dealt with in a large and generous manner. I believe that these are points on which whoever is promoting a bill will do well to consider the practical situation, and I am sure that they are all matters which can be very well adjusted; and, for

my part, I think Mr. Gulland's bill represents in its main lines the direction in which we ought to proceed.

Mr. J. W. GULLAND, M.P.—Mr. President, ladies and gentlemen, I do not know that I have any right to be here. I think the only capacity in which I am here is that of the person who starts a hare and who comes to see some of the fun of the chase, but it has given me great pleasure to be present and hear such an intensely interesting discussion and to take notes of so many new ideas and excellent suggestions that have been made by the various speakers. I am not going to take part in the general discussion upon this bill. I think most of the points have been put, and one speaker has answered another. But with your permission I should like to take up my five minutes in discussing generally the Parliamentary situation of this question, because, after all, however much we may discuss it, it must be by an Act of Parliament that these things will be put in order. Now, I often feel that on this question Ireland is to have precedence. Scotland has very often to wait till Ireland gets satisfied, and the Government that has in some way made itself responsible for the necessity of dealing with this question has already introduced a bill dealing with Ireland. The bill is called the Tuberculosis Prevention (Ireland) Bill—an admirable bill, probably much stronger in its general lines on tuberculosis than either England or Scotland could command; but that bill is due almost entirely to the personal energy of Lady Aberdeen, who has made the question her own, and has obliged the Government to take it up because of her educating Ireland. Besides, many other interesting provisions in the bill there are two clauses that deal with the question that we are discussing here to-day. By clause 17 any local authority may, if they think fit, cause to be slaughtered any milch cow which is certified by a veterinary surgeon to be affected by tubercular disease of the udder, and it provides for compensation in some complicated way, but not knowing the Acts that are referred to, I cannot describe them. Clause 18 provides that the Local Government Board may, on the application of any urban district, make an order under the said section. That gives in a pretty wholesale way the powers that Town Councils are seeking in this country. I don't know that it could be copied in Scotland just in that way. This bill dealing with Ireland has passed the second reading, and when the autumn session comes on next month that bill will be considered in Grand Committee, and will, I think, undoubtedly be passed into law this session. Then

with regard to England, the Government has promised legislation, and it is a great disappointment to those interested in the question that the bill has not been introduced. I think the probability is that the President of the Local Government Board, Mr. John Burns, is so busy with his Housing Bill that, till he sees it further advanced, he will not produce his Milk Bill; but my own feeling is that there is so much business before the House that the probability is that the Milk Bill will not be passed in the autumn session. It may be introduced for discussion and then reintroduced in the following session. With regard to Scotland, there is the bill that this discussion is chiefly ranged round to-day, the Dairies (Scotland) Bill, which I had the honour of introducing, but for which I do not have the credit that a good many of the speakers have been kind enough to give me. I am afraid that my share has only been in giving my name to it and doing what I could to advertise it up and down the country. I think it was Dr. Cullen who said that this bill was strangled in its birth, but, as the parent of it, I object very much to him referring to my little infant in these terms. (Laughter.) As a matter of fact it is not strangled; it is still alive. It is certainly in a sort of comatose condition, but it is down for second reading on 12th October, when the House resumes. I don't expect it will be read that day or any other day, because the Government take the whole time of the House; but although it has not much chance of passing, it is not dead. That is, perhaps, a Parliamentary distinction that Dr. Douglas will understand. I quite agree that this bill cannot pass this session; I never expected it to pass this session, but it has served its purpose, and, I think, extremely well. I thank Dr. Douglas for the way he has spoken—that the bill has served the purpose it was meant to serve, and it has received an enormous amount of discussion which, I think, will be of great value. My present intention is to consider the large number of amendments that have been suggested to it, and in another session to bring in a revised edition of the bill. It will, perhaps, satisfy most of the criticism that has been hurled at the bill; and I am sure that no discussion has been more valuable than what has taken place to-day. The papers which have been read by the three gentlemen were extraordinarily interesting, and contained practical points put by practical men like Mr. Findlay and Mr. Drysdale. I do not personally care whether the bill gets approval or criticism. A public man gets used to kicks, and he gets more of them than ha'pence; and as far as it gets criticised or discussed, "it's a' ane to Dandie."

(Laughter.) But what this bill has brought out, and what these two gentlemen have said, is that there is a large amount of agreement upon this topic. I had pleasure in attending a conference called by the Agricultural Society, and Mr. Findlay and Dr. Douglas moved a resolution approving of the introduction of the Dairies Bill, subject to such amendment as may be found necessary. I know that every farmer was not present at the conference, but the majority of those interested were represented, and that resolution was passed. A lot of amendments were proposed, many of which were quite reasonable, and many of which will be embodied in the bill; but the advantage of this is that whatever bill you are dealing with, it is so much easier to have an amendment before the bill is introduced than after it is in the House of Commons. You save time from the point of view of the Government and the House of Commons. They are willing to take up measures that take the least possible time, and, on the other hand, they dislike and shun a measure that is so full of controversy that it would take up a great deal of the time of the House. That brings me to my last point—that it is impossible, I believe, except on an agreed-upon measure, for a private member to pass through Parliament a bill of this sort, and that, therefore, it must be the Government who should take it up. The Secretary for Scotland has acknowledged the urgency of this question. However much the Government may be blamed for other things, it cannot be blamed for being slow in proposing measures of social reform. (Hear, hear.) Some gentlemen may think that it is rather quick in taking them up; but, at any rate, if it sees a clear case upon which it can legislate, it does legislate. I know from many talks with the Secretary for Scotland that he is fully alive to the importance of this measure. He was afraid at the beginning of last session that there was so much controversy that the Government could not afford the time to take it up, but I believe the harmony of the past proceedings will have a good effect on the mind of the Secretary for Scotland and make him see that after all this question is not so controversial, and enable him to take it up as a Government measure. We may regard you gentlemen as the pioneers of this subject, and, if you come to a decision, you ought to let the Government know with no uncertain sound. There are many interests pushing for legislation on other subjects, and several that I am interested in myself that I am pushing the Government to legislate for, and we all know the number of topics that are being pressed. We cannot blame them if there is some delay. It is very

often the noisiest that gets listened to, and you must take care that your voice is as loud as those who are calling for reform. On that ground I hope that this resolution of Dr. Munro will be moved and carried, because in putting the points in a concrete form like that, it is of enormous value to let the Government know what we want. I hope you will send these resolutions to the Secretary for Scotland, and not only will this Congress show its interest in this subject, but that every person who is interested will bring all the pressure he can to bear on those members of Parliament whom he knows, to get them also to tell the Government what a crying question this is, and that it ought forthwith to be solved. (Applause.)

The PRESIDENT—We are all very much indebted to Mr. Gulland for coming here and giving us his advice, and we have to thank him for the interesting address we have just had from him. (Applause.)

Mr. PETER FYFE (chief sanitary inspector, Glasgow)—Mr. President, ladies and gentlemen, I am sure we are all delighted this afternoon to have heard the expressions that have just fallen from the advocates of Mr. Gulland's bill, which has been spoken of so much, and we are pleased to think that Mr. Gulland is not so fond of his foster child as to be prevented from taking information and suggestions all round with regard to it, from whatever source they may come, so long as these suggestions go towards the strengthening of the measure itself and the encouraging of unanimity upon the bill which he desires, and, as he has informed us, is also desired by the Secretary for Scotland. Now, I have heard a good deal of criticism of this measure, and I have taken the opportunity of criticising several of its sections myself. The time at the disposal of the speakers here to-day is not sufficient, of course, for me to do more than allude to one or two points, and perhaps the meeting will excuse me if I allude to a point which may not deal so much with the principles underlying the measure as with a part of its machinery. Speaking as a sanitary inspector, I am bound to allude to this, because we have been invited to do so by Mr. Gulland here to-day. He said that "you must speak out if you want others to know exactly what you want," and therefore I may be excused when I speak to you with reference to one clause of the bill which very much surprised some people and a great number of sanitary inspectors who at present are administering, under a specific regulation of the Local Government Board, the present dairy bye-laws which are made by local authorities and

approved by the Board. I refer to clause 5—it is not a section yet, thank goodness—which makes peculiar reading when one takes into consideration the language employed in clause 2. Clause 2 is called a definition clause, and defines the machinery, so far as it goes, by naming the officials who are to exercise certain powers of executive for the purposes of the Act. Those who are acquainted with the proposed measure will notice that there are three officers named who are to carry out, under the local authorities, its various sections. The medical officer of health, we find, has most important duties connected with the detection of infectious disease, the control of epidemics, and generally with regard to detection and stoppage of unwholesome milk. Then we have, legally speaking, a new officer, although not new in another sense. Under clause 3 we have the veterinary inspector or surgeon, whose duty it will be to see to the health of the cows and the state of their udders, and possibly to administer the tuberculin test for the purpose of enabling him to judge which cows are to be considered as suspicious—a very important matter. Then a third officer is defined—called the sanitary inspector. Perhaps some of you have heard of him. He is fairly represented at these meetings. As I have said, he is defined also, but when we go into the bill itself we find that, while the other officers have specific duties to do under the bill, the sanitary inspector is to be satisfied with the definition. He is there, but only as a kind of statutory ghost, who makes an appearance but has no bodily substance. That is not a position which the sanitary inspectors of this country, I can assure Mr. Gulland, are prepared to occupy. The sanitary inspector has done the work in connection with all structural matters both in England and Scotland, and I believe also in Ireland, and, speaking for him on this platform to-day, I say that by section 5, which is the shortest one in the bill, he expected to have some little statutory duty to do. This is what clause 5 says—"The local authority shall, at least once in every year, cause all the dairy premises within their district to be inspected by an officer appointed by them, and all the cows on such premises to be examined by (naturally) the veterinary inspector"; so that this "officer" is to inspect all the byres with regard to their structural condition, drainage, ventilation, cleanliness, and as to nuisances generally which may be discovered about the premises, but he is not to be mentioned, as the others are, except under the name of "officer." In the Public Health Act, in the bye-laws of the Local Government Board, and the local Acts of Glasgow,

Edinburgh, and Aberdeen, &c., he is called the sanitary inspector, and known as such, and no other "officer" will be allowed to come in and filch from him the position which he has occupied for the last forty years in Scotland. (Applause.) A great deal of criticism might be entered upon, but my five minutes are about up, and I hope Mr. Gulland will pardon me any expression of righteous indignation. I hope that Mr. Gulland will not take it that all the statements in the papers read here this morning are correct, and unless there was some little criticism upon them one might be led astray. In Dr. Cullen's admirable paper, which I am certain commands the respect and admiration of the Congress, he said—which I admit is quite a popular idea—that the milk as it comes from the cow's udder is in a sterile condition. Recently there has been a very important investigation made into milk generally by Dr. Orr, of Wakefield, who has made some very valuable experiments on 75 milk samples, and he has discovered that such milk is not sterile. He states that there are between 4000 and 5000 bacteria in one cubic centimetre of a normal cow's milk as taken from the udder, and he argues that that milk should always be rejected, because the first milk, if drawn into the pail, will prevent the rest of the milk from keeping sweet for any length of time. It should always be rejected. With regard to Dr. Munro's resolutions, I should like to say, from my point of view, that while what he would like to attain in practical legislation for the regulation of dairies is theoretically correct, yet I don't think we will get legislation at present to come up to his theories either with regard to the bacterial contents of milk, or with regard to the amount of CO<sup>2</sup> which is proposed by him as the standard for byre air. He proposes a standard of 50,000 bacterial content in one cubic centimetre of milk. That would exclude about 50 per cent. of the milk that comes from byres to-day. The city of Boston standard is 500,000 bacteria in one cubic centimetre at a temperature of 53 degs. Fahr. when it leaves the farm; and Dr. Orr has discovered that the bacterial content of milk when refrigerated was considerably less when it arrived at the consumer's premises than it was when it left the dairy farm. We all aim high, but we must be practical. We all know that the standard for underground bakehouses to-day is something about 12 CO<sup>2</sup>—that is to say, that where your bread is baked the air is not to contain more than 12 parts of carbonic acid in 10,000 parts of air. The Government desired to standardise workshop air at 20 CO<sup>2</sup>.

The Medical Officers' Society would not agree with that, and said 12, and now we have Dr. Munro's proposal to bring it in byres down to 6, a standard many of us would be glad to get in our drawing-rooms at night. I hope the meeting will not consider that I suggest we will never get such a high legal standard as 6 CO<sup>2</sup> for the air of byres; we may, but not just yet. I am pleased you have given me this extension of time, and I hope that Mr. Gulland will feel how satisfied we all are that he has taken such a deep and earnest interest in the subject of our milk supplies.

Dr. CULLEN, in reply, said—Mr. President, ladies and gentlemen, I wish in a word to thank you for the very courteous hearing which you have given to my paper, and to express my gratitude for the very interesting and useful discussion to which it has given rise. There is one point in the discussion that I would like to mention. Mr. Drysdale referred to the fact that he thought the milk consumers did not give sufficient encouragement to those who are trying to do their best in the way of milk production. I think there is a great deal in that; but at all events, so far as we are concerned in Edinburgh, the Public Health Committee are setting a good example in that direction, because, with a very large contract of something over 1200 or 1500 gallons per month, we are paying practically 2d. per gallon more for the milk than we could get it from other farmers. This premium is paid to our contractors because we were satisfied that they have gone as far as they could under reasonable conditions, and because the milk was coming from premises such as Mr. Drysdale describes. With regard to Mr. Fyfe's statement that the milk from the teat contained micro-organisms, I have to say that my paper was necessarily a very short one. I was aware of the fact, but I referred only to the milk from the udder. This is generally sterile, and I took it for granted that the milk from the teat would be set aside. I have to thank you for the very patient hearing that you have given me.

The PRESIDENT—I think that, as Dr. Campbell Munro is to propose the resolutions which he has given notice of at the end of this discussion, it might be of advantage to ask Mr. Findlay to reply.

Mr. FINDLAY (in reply)—Mr. President, ladies and gentlemen, I expected when I came here that I would be subjected to a great deal of criticism, and I am quite surprised that so little has been said against the views which I have expressed. I must thank you for the patient hearing which you gave me, and if I have convinced any of you who were

of a different opinion, my visit to Peebles has not been altogether lost. There are one or two points that I might refer to. Dr. Cullen mentioned that in Edinburgh they gave 2d. per gallon more than they could get other milk for in a public contract. I am glad that that has been done, because I find that some public bodies are inclined simply to accept the lowest tender for milk, even after they have been very well pleased with the former supply. That is a well-known fact. I am pleased that Edinburgh has shown an example in that respect. Glasgow authorities, I believe, did a little in the same direction. They got milk from cows that were supposed to have passed the tuberculin test, but the price they gave was not sufficient to repay the farmers for the extra trouble and cost.

Dr. A. K. CHALMERS—It was 2d. more than the old contract.

Mr. FINDLAY—It does not matter, but my point is that the price which they gave was not sufficient to cover the risk and trouble which the farmers had, with the result that the whole system broke down. At least, I was told that; I may be wrong. Then Dr. Cullen referred to a separate byre for milch cows. That may do in theory, but not in practice. He referred to urban byres, but practically in many of the counties in Scotland we have byres washed out often once a day all the summer, and perhaps oftener. The cows come from the grass in the morning into a clean byre, and they come in at night to a clean byre, and it is nothing new; but to drive cows from the feeding byre into a milking byre would cause too much disturbance, and the benefit would not be worth the trouble involved.

Dr. CULLEN—I referred to town byres.

Dr. A. K. CHALMERS—It is done regularly elsewhere.

Mr. FINDLAY—Mr. Scott spoke about the danger that inspectors might cause in going about from one byre to another, and he referred to abortion. Very recently it came to my knowledge that an inspector was sent out from a certain town, and he went to a farm. The farmer had a strong suspicion that he (the inspector) had come from a byre where abortion was present, and would not allow him to come near the cows. That shows the danger of granting inspectors a free hand. Mr. Dunbar said he would like all the milk of newly calved cows to be forbidden, but I have used milk myself from a cow within a day after she was calved, and in other cases it might require a fortnight before the milk was fit for use. It is like the cubic space in a

byre; you cannot lay down a hard-and-fast rule. Dr. Parker Stewart spoke about cattle being insured, and that is quite a practical matter. You can insure anything, but who is to pay the premium? If the authorities are willing to do so, we are quite willing to agree to it. He also referred to the time limit for compensation for diseased cows. If he guarantees that after the cows are apparently free from tuberculosis no other cases will crop up, I agree with him, but we need not expect to see the last of tuberculous cows to a greater or less extent for a considerable time. With regard to floor space, the Local Government Board recommend 50 square feet per cow for all byres, but we find that 40 square feet is ample, and in many cases far less would do. I know an important burgh which suggested 60 square feet of floor space, and its neighbour, not to be outdone, recommended 84 square feet, showing that they knew comparatively little about the subject. It is a most impracticable thing to rely on the impurity of air in a byre at a given time, as it varies from day to day and from hour to hour. Even the opening of a door to clean out a byre alters the conditions, so that to put it down in figures seems to me very misleading. When I read Dr. Munro's paper I was quite surprised that any one would attempt to say that 6 parts in 10,000 of carbonic acid should be a standard, because I question if there is an office in Glasgow, or even a lady's drawing-room, as Mr. Fyfe said, that can attain to such a state of pure air; and what will be the impurities in sleeping apartments? With these remarks, allow me to again thank you, ladies and gentlemen, for the attentive hearing with which you have favoured me. (Applause.)

Dr. CAMPBELL MUNRO—Mr. President, ladies and gentlemen, I do not propose to attempt to answer criticisms. My simple desire is that this matter should be thoroughly ventilated, and that the Congress should give some definite indication of its views upon this subject. Without attempting to add to what has been said, I beg to move the resolutions that stand in my name. In moving these resolutions I am not greatly concerned whether you adopt them or reject them. What I desire is that the air should be cleared by your saying yea or nay to them. Without further words, I beg to move the first resolution—"That the Incorporated Sanitary Association of Scotland desires respectfully to represent to the Secretary for Scotland the urgent necessity for the introduction of a measure dealing with the question

of milk supplies and dairies in Scotland." (Cries of "Agreed.")

Mr. MIDDLETON (secretary)—I desire to say a word on a point of form. This is not a meeting of the Incorporated Sanitary Association of Scotland, but a meeting of Congress held under the auspices of the Association, and the motion should read, "That this Congress desires respectfully to represent to the Secretary for Scotland the urgent necessity for the introduction of a measure dealing with the question of milk supplies and dairies in Scotland."

Mr. JOHN LINDSAY (depute town-clerk, Glasgow)—May I be allowed to move an amendment—"That these resolutions be remitted to the Council of the Association for consideration and report"? I do not think you can discuss sixteen controversial points on this subject at this time of day.

The PRESIDENT—I have to ask this meeting to allow Dr. Munro to withdraw the last supplementary four resolutions, which will leave twelve, as you find them on the first programme still to be dealt with. It is for this meeting to say how they are to be dealt with. I think that that does not arise till after the first resolution, which Dr. Munro has brought forward just now, has been dealt with.

The motion, on being put to the meeting and as altered on the suggestion of Mr. Middleton, was unanimously agreed to.

Dr. CAMPBELL MUNRO—Then we come to the second resolution, and without any observation whatever, but simply with the view of affording a guidance to the authorities, I move, "That any such measure should embody the following requirements:—Subject to a dispensary power in the hands of the Local Government Board, local authorities ought to be required to appoint veterinary inspectors, debarred from private practice in the district, for the purposes of the Dairies Act, the Public Health Act, and the Diseases of Animals Act, powers being given to local authorities to combine for the purpose of such appointments." If you do remit this to anybody you lose an opportunity such as you never had before. We have been talking about the milk business for many years, and here we have local authorities and consumers and representatives of the dairy farming interest all with us. To remit it to any other body would be simply a hanging up of the matter. I have no difficulty in leaving this resolution in your hands, as I would as soon have a negative as its approval, because then we would know how we stood.

Mr. PETER FYFE—Mr. Chairman, are you prepared to allow an amendment to be moved to each of these resolutions, because I think No. 1 is a very bad one, and I am prepared to speak five minutes on it just now, or, as an alternative, I would second Mr. Lindsay's general amendment.

The PRESIDENT—The matter is entirely in the hands of the meeting.

Mr. PETER FYFE—Then I beg to second Mr. Lindsay's amendment.

The PRESIDENT—I have a motion from Mr. Scott moving the previous question to the twelve resolutions, so that it is perfectly open for any member to move an amendment to any one of them.

Mr. PETER FYFE—I have a large number of amendments, but meantime I beg to second Mr. Lindsay's motion, that these resolutions be remitted to the Council for consideration and report. According to Mr. Gulland, there is no hope of the private measure going through Parliament in the meantime.

The PRESIDENT—Do you mean to report to the next Congress?

Mr. FYFE—Yes, because, as Mr. Gulland says, it will be another year before any Government measure is submitted.

County Councillor ROBERT LAMBIE—It does not seem to matter very much. It is only occasionally that there are autumn sessions, and it means that, although this bill is not carried through, it may be that there will be another session before the Association meets.

Mr. KELSO—There could be a special meeting convened for the purpose.

Dr. BROWN—I beg to second Dr. Campbell Munro's motion.

Mr. LINDSAY—My amendment is that the twelve resolutions be remitted to the Council of this Association for consideration, and with power to them to act as they may think proper. In support of that I would point out that almost every one of the twelve motions is of a controversial nature. Just, for example, I would ask you to look for a minute at this resolution, "Subject to a dispensary power in the hands of the Local Government Board, local authorities ought to be required to appoint veterinary inspectors debarred from private practice in the district." That is in the district in which they are acting; but they are not to be debarred from practising in the adjoining district from which the milk supply is to come; and the whole point about the veterinary surgeons is that they should be in a position of



independence, that they should devote their whole time to their public duties, and if one authority cannot afford the expense of a veterinary surgeon it can combine with another, but it is preposterous to say that any virtue can be derived from this condition, that he is to be restricted from private practice in his own district, whilst he can have his practice in the adjoining district. I do not think you can discuss this within ten minutes, and I would move that the whole of these matters be remitted to the Council for consideration.

County Councillor LAMBIE—I beg to second Mr. Lindsay's amendment.

The PRESIDENT—Mr. Scott has given notice that he intends to move the previous question.

County Councillor THOMAS SCOTT—I beg to move the previous question—that these resolutions be not considered by the Council.

This amendment was not seconded.

Dr. A. K. CHALMERS—We have met here and have discussed for four hours everything connected with the milk traffic, and we have been told by the secretary that there is another body besides this Congress called the Incorporated Sanitary Association of Scotland. Now, is it not possible for us, and would it not be reasonable for us, to express an opinion on those matters that we have been talking about to-day? We are surely able after this discussion to formulate something that the Government will listen to. They want an opinion, and we, rather than the Council of any association, may lay claim to represent public opinion. Secondly, I would urge you to consider the resolutions seriatim, and, whether you accept them or not, to give an opinion upon the matter. (Applause.)

The PRESIDENT—There is a motion and an amendment before the meeting, and we will proceed to vote in the first instance.

Mr. JOHN POLLOCK (Howwood)—Am I in order in proposing another amendment? While I consider that this is a matter of vital importance, it seems to me we have no time to discuss details. I would therefore move that we adopt the principles embodied in the resolutions submitted by Dr. Munro, and remit the matter to the Council of the Association to consider the resolutions and deal with them consistently with these principles.

Mr. STERLING CRAIG (Edinburgh)—I beg leave to move that we adopt the whole of these resolutions with the exception of the second clause in paragraph 1, that we omit the reference to veterinary inspectors being debarred from private

practice in the district. With that omission, I think the most of the meeting are in favour of all the others. (Cries of "No.")

Dr. DOUGLAS—I rise, not to move any amendment, but to make a suggestion. I think we all feel that it is our desire to express our opinion, and that it is impossible to discuss these resolutions which do cover matters of detail. I think it would serve Dr. Munro's purpose to give a general approval only of the bill which has been discussed in detail this afternoon.

Dr. CAMPBELL MUNRO—I should be very glad to adopt the proposal.

Mr. JOHN LINDSAY—Although I have an objection to almost every one of the resolutions as framed, I am prepared, with the consent of my seconder, to move that the main principles embodied in the resolutions be approved, and that the resolutions be remitted to the Council of the Association for consideration, with power to them to deal with them in detail as they may determine in accordance with the said principles.

Mr. Lambie signified his consent to this as seconder of Mr. Lindsay's motion.

Dr. CAMPBELL MUNRO—I am very pleased that we are approaching an agreement.

The PRESIDENT—I think the amendment which, with Dr. Munro's approval, now becomes a substantive motion, should run—"That this Congress express their approval of the general principles embodied in the twelve resolutions submitted by Dr. Munro, and remit them to the Council of the Association to be dealt with in detail in accordance with these principles, with power also to the Council to bring the said resolutions as adjusted before the Secretary for Scotland with a view to their being given effect to in any prospective legislation."

County Councillor ROBERT LAMBIE—I have much pleasure in seconding that.

On being put to the Congress the motion was unanimously adopted.

County Councillor ROBERT LAMBIE—Before parting, I beg to move a hearty vote of thanks to the Chairman for his conduct in the chair, and also to the secretary for his services. (Applause.)